DOCUMENT RESUME

ED 467 976 IR 021 496

AUTHOR	Wyatt, Ray
TITLE	Web-Based Teaching: The Beginning of the End for Universities?
PUB DATE	2001-12-00
NOTE	10p.; In: Meeting at the Crossroads. Proceedings of the Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE 2001) (18th, Melbourne, Australia, December 9-12, 2001); see IR 021 433.
PUB TYPE	Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS
DESCRIPTORS	Computer Uses in Education; Educational Technology; Foreign Countries; Higher Education; *Instructional Development; *Interdisciplinary Approach; *Online Courses; Policy Formation; Technology Uses in Education; *Web Based Instruction
IDENTIFIERS	University of Melbourne (Australia); *Course Development

ABSTRACT

This paper describes a World Wide Web-based, generic, inter-disciplinary subject called computer-aided policymaking. It has been offered at Melbourne University (Australia) from the beginning of 2001. It has generated some salutary lessons in marketing and pedagogy, but overall it is concluded that Web-based teaching has a rosy future. Nevertheless, difficulties in getting this particular inter-disciplinary subject widely accepted have laid bare some of the disciplinary-based myopia and information-based elitism that characterizes traditional universities. Specific problems discussed include universities' lack of resources, the competitive nature of universities, disciplinary chauvinism, and the custody of information. It is therefore concluded that adaptation to the Web's greater flexibility and democratization of education is an urgent priority for universities if they wish to retain their present position of leadership. (Contains 14 references.) (Author/MES)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 467 976

WEB-BASED TEACHING: THE BEGINNING OF THE END FOR UNIVERSITIES?

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

H. Carter

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Ray Wyatt
School of Anthropology, Geography and Environmental Studies
The University of Melbourne, Australia
Rgwyatt@unimelb.edu.au

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Abstract

This paper describes a web-based, generic, inter-disciplinary subject called 'Computer-aided policymaking'. It has been offered at Melbourne University, Australia from the beginning of 2001. It has generated some salutary lessons in marketing and pedagogy, but overall it is concluded that web-based teaching has a rosy future. Nevertheless, difficulties in getting this particular inter-disciplinary subject widely accepted have laid bare some of the disciplinary-based myopia and information-based elitism that characterizes traditional universities. It is therefore concluded that adaptation to the web's greater flexibility and democratization of education is an urgent priority for universities if they wish to retain their present position of leadership.

Keywords

web teaching, internet, decision support, policymaking, information, elitism, university, education

Motivation for the Subject

One way to get students' attention is to ask them why they are attending university. They will stare at the floor and shuffle their feet while their instructor muses over whether they are studying to make money, demonstrate their intellectual superiority, meet a lifetime partner, avoid full-time work or simply indulge their curiosity. In truth, students attend universities for some, if not all of these reasons. But what is the "official" story? Why does the public continue to subsidize higher education?

For vocational faculties the answer is easy - to ensure that society will have graduates capable of building things, healing the sick, ensuring that justice is done and so on. For the non-vocational faculties, like Arts and Science, the usual justification is different. It goes along the lines that society needs graduates who are capable of wrestling with complex ideas, who understand histories, who are sensitive to different cultures and who are creative, articulate and critical to boot. But why does society need such graduates? It could be that generalist graduates foster an orderly and democratic society. But other personal traits besides educational enlightenment are needed if we are to sustain a just, fair and ordered civilization - qualities like personal health, empathy, awareness and morality. But the public purse does not pay for our personal trainers, social interactions, holidays, mobility or spiritual well-being. However, it does pay for people's higher education. Why?

Perhaps there is some kind of societal expectation that graduates of generalist faculties will be able to tell everyone how to do things better. That is, they will be able to make decisions about the future that are better than the decisions that we have made in the past. Their greater wisdom and understanding will ensure that they lead the great debates of our time and so steer us towards better decision making. In short, they will be good policymakers. But it does not always work this way. Indeed, most readers will have met generalist graduates who are able to give many different reasons why any proposed policy is inadvisable. Yet they are insufficiently in control of themselves

IR021496

BEST COPY AVAILABLE

to be able to recommend what exactly ought to be done. In short, they are poor policymakers; academia has performed less than optimally when it comes to producing good decision takers.

The reason for this might be related to universities' obsession with information. Many academics have a touchingly innocent belief that if enough information is collected then someone in authority, some bureaucrat, politician or director, will simply base decisions on their information and so policy-making will be improved. This is naïve. Decision takers usually have far more things to think about than just the empirical, logical or analytical justification for scientists' or other advisors' favorite policies. Nevertheless, the academy keeps concentrating, almost exclusively, on theorizing, gathering information and analyzing, as well as producing students who are able to do these things well.

Such stubbornness stems from a prevailing mindset that is reminiscent of Edward de Bono, who once said that if we knew everything, then what to do would simply be obvious. But we will never know everything. Indeed, it was once pointed out that by the late 1960s we knew enough to enable humankind to walk on the moon. Yet if there had have been people living on the moon at the time this task would have been immeasurably more difficult. There would have been so much haggling about where the astronauts should land, who would meet them, which guests would be permitted to attend their welcome reception and where the visitors would stay, that the whole Apollo mission might have had to have been aborted. When people are involved, choosing the most suitable policy becomes much more difficult no matter how well "supported" some particular one might be.

Therefore, to balance the academy's obsession with decision support and to emphasize the people part of the people-oriented policymaking process, a web-based subject, *Computer-aided policymaking*, was launched at Melbourne University. It deals with the policymaking lessons that can be derived from policymaking software - software that is designed to help people actually make a decision about what is the best thing to do. Such decision-making is assumed to occur after all the information has been collected and all the decision support reports have been read and assimilated. That is, the subject focuses on "point of decision" processes; those that take place, with people in mind, at the crunch time when it is necessary to recommend a course of action to a minister, company board or whomever.

Chronology

The subject's genesis was predictable enough. With higher education's decreasing resources and increasing staff work loads, in 1997 the author's department resolved to slash lecture-preparation time by consigning teaching materials to the web. Better still, if cooperative partnerships with leading academics around the world could be formed to do this, our subjects might attain genuine global leadership and so enable us to survive within the brave new world of web-based and ultra-competitive education. Yet such enthusiasm did not last for more than a year or so. Although much teaching material was duly placed onto a local server for our own students, *Computer-aided policymaking* was the only subject to make it into the international arena. It is the only one to be completely web-based in the sense of having no face-to-face contact at all between lecturers and students (Relan & Gillani, 1997), and it is the only one that is consciously offered to people who are not enrolled at our home university.

The subject's emergence was helped by the author writing its basic textbook, also called *Computer-aided policymaking*, at about the same time (Wyatt, 1999). Moreover, in 1998 the author applied for, and was awarded study leave, which he used in part to visit US and UK. Here he personally enlisted the support of two American and the one British software writers, all of whom he had met previously but who had never met each other. These three individuals are all full professors who spend most of their research time developing and promoting their software. Thus in every case their software is based on many years of consulting experience around the world. All of these professors readily agreed to contribute their software and thoughts to this web-based subject, perhaps partly because of the publicity that this subject might bring for their respective computer packages.

Subject Content

Of the ten "lectures", each of four software writers, from US, UK and Australia, contributed two, with the coordinator and author of this paper, the Australian, also writing introductory and concluding lectures. Such lectures are parked on the subject's web site and students are sent, by ordinary mail, a password to access them. Each teacher's first lecture is about how to use their software, and their second is about how their software has been applied to a wide range of real-world, policymaking problems.

There are four assignments that are respectively based on each of the four, highlighted software packages. Trial versions of the latter are supplied on a CD-ROM that is posted out to each student. The only other item of assessment is a 3000-word essay, submitted by email. In it, students address issues raised by the textbook, the lectures, the assignments and any additional reading. When writing up their essay, candidates are supposed to discuss whether or not the various prescriptions for better policy-making, presented in the textbook, lectures and assignments, have been confirmed or confounded.

All students enrolling in the subject are made members of the class' email discussion list, and an automatic welcome message is sent to their email address whenever this is done. It is explained that all comments on, and problems with the subject are to be sent to the discussion list so that everyone in the class sees them. In this way it is hoped that students will help each other to solve their mutual problems in the true spirit of cooperative learning (Ellis and Fouts, 1993). It is also insisted, in lecture one, that every new class member makes a "maiden speech" to the rest of the group before they are posted the CD-ROM of software. Such a maiden speech should outline what other subjects the candidate is studying and why they want to undertake this particular one.

The subject's web site, as well as students' welcoming letters, state that all candidates must finish the subject within a minimum of six weeks and a maximum of 13 weeks. It is also explained that the subject is equivalent to a standard 12.5 point subject within the University of Melbourne's Arts faculty. As such, it constitutes a quarter of a full time student's load at any one time, and so it requires up to 10 hours of work per week over a twelve-week "semester". In terms of fees payable, any student at Melbourne University, where it is an approved subject, pay to do it like they would pay to do any other subject. For those enrolling from elsewhere, the flat fee is $(US)300, and if a whole class from an external institution enrolls, discounts apply.

Pedagogical Lessons

The strengths of the subject are fairly obvious. Not only is it far cheaper for any department to teach than would be the equivalent campus-based subject, but it also enables students to be taught by an international consortium of experts who, by definition, would not be able to teach a campus-based subject together. Moreover, the around the clock discussion group can, in theory, achieve levels of student involvement that are unattainable by campus-based subjects. Also, the lectures can be continually changed if they are wrong or unclear to students, again, something that cannot be done when they are delivered in the conventional way. Another advantage of web-based subjects is their flexibility. Students can fit in their work around their increasingly complicated lifestyles as they juggle their time between study, recreation and paid employment for financing their university fees. Finally, students save considerable time by not having to attend lectures and conventional tutorials. This mode of teaching seems designed to conform to the way people live, work and play (Monteiro, 1998)

However, the news is not all good, because with this particular subject some unanticipated things happened. For instance, despite widespread enthusiasm for making "maiden speeches", one mature, female student sent a private email to the instructor saying that she would do no such thing. The author replied within a day or two, explaining how the discussion list only existed, for the good of all, because her fellow class members were willing to contribute to it. This prompted a reply from her explaining that she disliked "public speaking", especially to a discussion list whose membership might well be huge and which might even include people she knows – which would

make her change what she wanted to broadcast. So, just in case other students had similar reservations, the author sent a class list to the discussion list, but before he did this, the student concerned sent in her maiden speech to the group. It was the longest ever received, and it went into some detail about the policymaking methodology aspects of her job, a job that involved taking abuse from all sides of environmental debates, because she worked as a telephone assistant for a state minister of conservation. Whether this student genuinely was frightened to "talk to" an unknown group, or whether her job made her wary of making "public" utterances, or whether she simply did not like doing things until she was well prepared, must remain open questions. Indeed, they could be fruitful lines of research for others studying web-based education.

Only a disappointingly small amount of discussion ever took place on the discussion list. Despite several initial declarations of enthusiasm for "working together in the weeks to come", few bothered. At times issues were raised, but once the instructor answered them, such discussions went no further. There could, of course, be many reasons for this. Perhaps the instructor did not answer questions in a way that encouraged further discussion from the class, although he certainly tried to. Perhaps there was interaction between various, or even all members of the class outside the official discussion list. Alternatively, perhaps students at Melbourne University are simply too competitive, or too shy, to actually share insights. All of these are plausible reasons for the lack of activity on the list.

The most likely reason, however, was that most class members were simply embarrassed because they were procrastinating. Virtually everyone was "behind schedule" in the sense that well into the semester the instructor had not received even one small assignment from anyone. Even at the end of the subject, only one student had submitted all four assignments and the essay. Moreover, of the original 18 local students enrolled during semester 1, 2001, only 12 stayed in the subject until the end. We can therefore remark that, at least as far as this subject was concerned, for web-based students the temptation to leave all their work as late as possible becomes too much. One student even procrastinated to the point of not collecting a CD-ROM containing the assignments' software until the twelfth week of the 12-week semester. Since it can be quite embarrassing to admit that one is behind, it is little wonder that discussion on the email discussion list, about problems with assignments and so forth, was sparse. Whenever they encountered difficulties, many students simply sent personal email messages to the coordinator instead.

The Underlying Problem

Behind these lessons lurk several deficiencies of modern universities in terms of their ability to adapt to the burgeoning growth of web-based teaching. At least in the western world, universities are under-resourced, they are defensive about their current position within the educational pantheon, they indulge in disciplinary chauvinism and their teaching staff have, in a way, been spoilt by their privileged position hitherto. We will deal with each of these problems in turn.

Universities Lack Resources

Shrinking funding can be endured for a while. Teaching staff simply work harder by taking larger classes and doing more administration. Eventually however, they start complaining about lack of time to do research and so maintain the quality of their teaching. So more administrators are employed to take some of the burden. But administrative staff are sometimes intent on making their own jobs secure and they therefore make more work, for themselves and for others, so that they themselves look indispensable. The result is that administration loads become heavier rather than lighter, and the whole administrative function of the university becomes slow and unresponsive to change.

In our particular case, *Computer-aided policymaking* took a full two years to make it through all of the approval committees, and so it did not have a viable class size until 2001. Such tardiness surprised the author, given that web-based subjects were hardly a new phenomenon elsewhere. After all, by 2000 there were over 800 US colleges and universities offering distance courses for credit, to their own and to other students, mostly via the web (Simonson *et al.*, 2000). It is true that at the unofficial level there was encouragement for the author. All academic staff at Melbourne are

sufficiently trusted to allow them to offer subjects as a "not for credit" course on the web. But it was a different story when seeking approval to make this an official subject that is worthy of entry into the university handbook. Committees seemed forever to be placing obstacles in its path.

Without being privy to what was said at the latter's various meetings, one can only surmise, from hints and suggestions that have been put to the author, about what the major stumbling block was. It seems to have been authentication. If students were to be unseen, how would the instructor know that it was they who were doing the work for the assignments and essay? Accordingly, approval was granted only after the author convinced the committee that procedures had been put in place to guard against such cheating. Specifically, all externally enrolling students have to sign a form consenting that they can be quizzed by telephone about their knowledge of the lectures, textbook and software. Moreover, after such a quizzing, the subject coordinator is within his or her rights to insist that they post, by ordinary mail, a statutory declaration signed by someone in authority in their local neighborhood, saying that it was they who had been speaking on the telephone. This is why there is an email discussion list and the "maiden speech". Apart from stimulating helpful discussion and feelings of belonging, such speeches serve to make each participant's writing (and speaking) style well known. Hence it is easier to spot any suspicious changes in style when the final essay is submitted.

In short, Melbourne University is ambivalent towards Internet-based education. It does not want to miss out on any advantages that it may have, but the university still takes a long time to approve any instance of it - in this case, due to concerns about authenticity of students work. Thus a prestigious, traditional, university wants to sell itself as a boutique, campus-based institution rather than a huge open-learning body for the masses. But it also wants to be at the cutting edge of education by being on the faster and flexible web. These two aims are contradictory and so pursuing both tends to make them detract from each other's chances of success. Moreover, if money is to be in even shorter supply in the future, the inability of traditional universities to keep up with developments in web education is likely to be exacerbated further.

Universities are Competitive

Many staff fall into the trap of boosterism. We certainly did. We thought that our university is of world importance, or at least of sufficient importance to make prospective students enroll because of its good name. But this simply did not happen, despite our being very careful to choose appropriate key words for our subject's web site, our submission of key words to several web search engines and considerable advertising to targeted academics at various business schools within North America.

The reason probably has a lot to do with the fact that prospective class members around the world would probably be studying at some tertiary institution already, and the latter is usually not likely to approve their students enrolling in some web-based subject as a component of their degree. This is partly because of their staff's uncertainty about the quality of any outside subject and partly because academic staff tend to think that they teach all the necessary subjects satisfactorily themselves. Why, therefore, should they "import" subjects from the web?

Put differently, importing subjects from elsewhere is tantamount to admitting that one's own institution is incapable of teaching such material by itself. This will never be conceded because every educational institution has its own vested interests at heart, and it needs to protect the job security of its existing staff. True, one day it might become obvious to deans that importing web-based subjects is far cheaper than teaching in house. But a subject's quality would have to be extremely well thought of, or the home institution would have to be in very deep trouble, before departments would be willing to lose so much control over their courses.

Nevertheless, the author thought he might be able to ensure that this subject was taken by a whole classes at a Dutch university. This was because he had a contact there who admired the subject. Accordingly, he broached the topic when he was visiting in 2000. But alas, *Computer-aided policymaking* was not exactly what they wanted for their students. They might well be able to use

its content as part of an existing, in-house subject, but not as a substitute for it. They were more interested in GIS-based information analysis for policymaking support, rather than exclusively in software for making final policy decisions. Every academic has a slightly different view of what subjects ought to include. So it is difficult to get them to acknowledge merit in someone else's choice of content.

The teachers who would be most likely to go as deeply into policymaking software as our subject does are, in fact, the other international collaborators. One works in a business school, another in a government policymaking school and the other in a development studies department. But even these professors have failed to recommend the subject for their own students. No doubt they all teach subjects in which their particular software, and its associated approach to policymaking, takes pride of place. So why would they want to substitute for their own subject one in which their software receives only a quarter of the attention at the most?

It should be noted that a casualty of all this can be staff actually shielding their students from exposure to web-based teaching excellence. In order to be "the best of its kind in the world", our subject necessarily became very specialized in its focus. This was the only way to keep it manageable enough to be able to mount it on the web anyway. Such specialization brings excellence, but it also triggers a host of barriers to its acceptance. These include marginalisation by many professions, chauvinistic rejection by others and within still others an unwillingness to substitute one subject for the eclectic fragments of knowledge that they currently teach. Readers who plan to offer a specialized web-based subject, one that will supposedly survive because of its excellence, need to be prepared for this.

Disciplinary Chauvinism

Computer-aided policymaking has potential to be very popular. The author has so far asked only three faculties to list the subject – Arts, Architecture and Engineering, and they have all said yes. Moreover, it should be of interest to many other faculties as well, because policymaking occurs within all vocational disciplines. But such a genuinely inter-disciplinary nature means, somewhat perversely, that it finds it hard to locate a secure "home of its own". The result is that, so far, it has attracted few students.

It did not even make the handbook in Engineering in 2000 and it had such minor prominence in Architecture's offerings that just one student from that faculty enrolled. The largest numbers came from an Arts Faculty department where it was actually registered and promoted a little more. But alas, changes in that department prompted its head, midway through 2001, to threaten to remove *Computer-aided policymaking* from his list because the department only wanted subjects it "could control". This person now shows signs of keeping *Computer-aided policymaking* because of its quality and relevance to his students, but its survival there continues to be somewhat precarious.

Our point is that unless the teacher is actually part of the staff of a department, where they can look after their subject in terms of making sure that it remains on lists and is not displaced by another subject, then its survival will always be problematic. Academic fence building, despite the rhetoric that we often hear about encouragement of inter-disciplinary content, has resulted in rather paranoid, chauvinistic and in-bred departments. Consequently, any subject like this one, which claims to be genuinely inter-disciplinary, will find it hard to be "taken in" and protected by any one department.

The author actually works in a humanities department, whose members are not really interested in policymaking. So he did not even try to get this subject approved within his own unit. It was approved, through an associate in another department as one of their own subjects. However, once it became evident that it was earning student resources from enrolments, its subject number was changed so that payments would flow to the author's department. This in turn may have prompted some of the approving department's displeasure with the subject - again, the author is not privy to discussions that have taken place.

BEST COPY AVAILABLE

Note also that the author's position in a humanities department has probably been a disadvantage in terms of wider acceptance. Places like business schools possibly see the subject as too non-rigorous and analytically undemanding for their students. This is unfortunate since, with the demise of much public policymaking due to government downsizing and outsourcing, one of the strongest remaining bastions of policymaking techniques is, in fact, business schools. Accordingly, they can be expected to contain many potential students. But disciplinary chauvinism of the type that sees other disciplines as inferior, and therefore incapable of teaching their own students anything new, has reacted against the prospects of this subject.

In theory, this subject should have been most welcomed by a former department in which the author worked - Urban Planning. But although the latter department listed the subject, it has not been actively encouraged there. This is because of changes within the urban planning discipline that make computer-aided policymaking (planning) highly unfashionable. Indeed, anything that smacks of computer-based analysis has been out of favor for at least 15 years. Its academic leaders (but not its genuine practitioners) find it more meaningful to emphasize phenomenology, pragmatism, structuralism and deconstruction theory in the tradition of grand design theory (Parkin, 1993).

Finally, even amongst the professional planners and policymakers that the author and colleagues have encountered while consulting, several resent having to "talk to a computer". As such, they are automatically against the whole spirit of computer-aided policymaking (Wyatt & Smith, 2001). They feel that policymaking is a warm, organic, human, ambiguous, iterative and gloriously illogical activity. Applying cold, silicon-based, inhuman, precise, sequential and logical computers to it, therefore, seems inappropriate. It follows that there are several students out there, particularly in Arts faculties but also in Architecture and even in Engineering, who are simply ideologically opposed to taking this subject due to the growth of "anti-science" during the late twentieth century.

Custody of Information

Due to lack of resources again, university libraries are rapidly canceling their subscriptions to many refereed journals. The result is that one cannot now attend the library of a large university and expect, as during the last several centuries, to find the latest knowledge there. Such knowledge has been privatised. It is increasingly available in the form of electronic journals and databases that are accessible only to paying subscribers. Hence unlike during the middle ages and even after the invention of the printing press, universities no longer stand as the sole repository of frontier knowledge. The new guardians are the owners of the servers on which electronic publications are stored. Universities, and their staff might still subscribe to the important electronic databases and journals, but rising prices will eventually see universities' grip on them loosen.

This has implications in terms of how academics see themselves. They have long been used to acting as the gate keepers of cutting edge information. After all, great prestige is attached to such a role. If one is in control of a field's information then one will often be asked to give advice on practical questions whose proper solution seems to depend on information. But if one no longer is a custodian over such information, one becomes less useful to policymakers. Consequently, academics are making strenuous efforts to maintain their position as information-based gurus.

Accordingly, they keep insisting that information is the key to good policy advice. As such, they find it hard to believe that some people, like the teachers of *Computer-aided policymaking*, do not see policymaking as predominantly an information-dependent activity. It relies just as much on tracking the hopes, fears, beliefs and desires of the common people who are going to be affected. To most academics this viewpoint seems like heresy. Since the ancient Greeks, custodians of learning have tended to divide knowledge, and their own individual roles, into substantive fields - geology deals with rocks, chemistry with chemicals and so on. This is why generic, technique-based disciplines such as mathematics, computing and policymaking have frequently found it difficult to be accepted.

Hence, on the one hand, academics believe that universities will keep their prestigious position as advisers to society so long as all problems are seen as solvable by collecting information about all the substantive fields that impinge on the particular problem. On the other, if problems are better solvable through more democratic, less elitist techniques rather than information-collection, then expansion of web-based, interactive policymaking techniques will torpedo the prestige of information-controlling, academic experts. Fear of the latter seems to be a major reason why the inter-disciplinary subject, *Computer-aided policymaking*, tends to be rejected by established academic departments.

Conclusions

Our conclusions follow naturally. Lecturers should make sure that the subject approval process is sped up, perhaps by incorporating some form of web-based examination procedures (Brooks, 1997) in order to placate those worried by authentication of students' work, and perhaps having someone with power to shepherd your subject through the various committees. Also, if your subject is genuinely inter-disciplinary you might find it difficult to find a supportive department to nurture and protect it. In addition, one needs to consider carefully how specialized the content is to be. If it is highly specialized like ours is, even with a four-person internationally cooperative effort it is not guaranteed to be taken by students in various countries around the world. Most teachers in such institutions will see it as too narrowly focussed to devote a whole subject towards its content. On the other hand, if you make your subject a generalized one that includes diverse things, the competition from local institutions' own subjects is likely to be fierce, and so again, few teachers from elsewhere will recommend it for their students. One needs to think carefully about the ideal balance between specialization and generality before finalizing one's offering.

Also, since an obvious problem with our subject, so far, has been its students' procrastination, one remedy is to insist that certain deadlines will be met, with say, the first two assignments not being accepted after week four, and so on. However, there could also be more subtle changes that would inspire the students to first become more involved and then, once involved, to submit more of their work on time. For example, although simply having an email discussion group is a first step that prompts students to make introductory speeches that promise an exciting amount of "self-regulated" learning (Pintrich, 1995; Romiszowski, 1997) ahead, such a forum probably needs to be made even friendlier and more welcoming. It could be useful, for instance, to reveal periodically who else is studying the subject and to make their photographs available for viewing. This would give the discussion list a genuine "human" feel about it (Porter, 1997). Failing that, part of the subject's assessment could be tied to the students' amount of participation in the discussion forum.

Finally, the mounting of our subject on the web has indicated that there are serious flaws in universities' current efforts to maintain their control of education. Universities are elite and exclusionary, not to mention possessive of and addicted to information. By contrast, the web is democratic, inclusive and much more sharing of its resources. Financial pressures on modern universities have made many of them turn inwards to defend their ancient stance rather than outwards to embrace a more flexible, more transparent world.

It took our experience with *Computer-aided policymaking*, a subject whose thinking is more Internet-oriented than traditional and information-based, to highlight such contrasts in educational approach. The clever universities will adapt to web-driven changes in the manner recommended by social constructionist theorists (Bijker & Law, 1992) but others will not. Melbourne University has show a willingness to adapt to changes in the face of considerable opposition from traditionalists, so at least its intentions are forward-looking. But unless a majority of universities do likewise, it is possible that the sector as a whole will eventually lose the privileged position that it has enjoyed for the last thousand years.

References

Bijker, W. E., & Law, J. (1992). General introduction. In W. E. Bijker, & J. Law (Eds). *Shaping technology/ building society: Studies in sociotechnical change*. Cambridge, MA: MIT Press.

Brooks, D. W. (1997). *Web teaching*. New York: Plenum.

Ellis, A. & Fouts, J. (1993). *Research on education innovations*. New York: Eye on Education.

Monterio, E. (1998). Living with technology. *Scandinavian Journal of Information Systems, 10*(1 & 2), 249-254.

Pintrich, P. R. (1995). Understanding self-regulated learning. In P. R. Pintrich (Ed.). *Understanding self-regulated learning*, (pp. 3-12). San Francisco: Jossey-Bass.

Parkin, J. (1993). *Judging plans and projects* Aldershot: Avebury.

Porter, L. R. (1997). *Creating the virtual classroom*. New York: John Wiley.

Relan, A., & Gillani, B. B. (1997). Web-based instruction and the traditional classroom: similarities and differences. In B. H. Khan (Ed.). *Web-based instruction*, (pp. 41-46). Englewood Cliffs, New Jersey: Educational Technology Publications.

Romiszowski, A. J. (1997). Web-based distance learning and teaching: Revolutionary invention or reaction to necessity? In B. H. Khan (Ed.). *Web-based instruction*, (pp. 25-37). Englewood Cliffs, New Jersey: Educational Technology Publications.

Sikdar, P. K., Dhingra, S. L., & Krishna Rao, K. V. (Eds). (1997). *Proceedings of the Fifth International Conference on Computers in Urban Planning and Urban Management*. Narosa Publishing House: Mumbai.

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2000). *Teaching and learning at a distance*. Upper Saddle River, New Jersey: Merrill.

Wyatt, R. (1997). Reversing decision support systems to reveal differences in human strategizing behaviour. In H. Timmermans (Ed.). *Decision support systems in urban planning*, (pp. 87-106) London: E & FN Spon.

Wyatt, R. (1999). *Computer-aided policymaking*. London: E. & F.N. Spon.

Wyatt, R., & Smith, J. (2001). Computer-aided option selection (CAOS): The case for and against (forthcoming).

Copyright © 2001 Ray Wyatt.

The author(s) assign to ASCILITE and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The author(s) also grant a non-exclusive licence to ASCILITE to publish this document in full on the World Wide Web (prime sites and mirrors) and in printed form within the ASCILITE 2001 conference proceedings. Any other usage is prohibited without the express permission of the author(s).

BEST COPY AVAILABLE

U.S. Department of Education
Office of Educatonal Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE
(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title:	ASCILITE 2001 Conference Proceedings		
Authors:	Kennedy, A., Ed.; Keppell, M., Ed.; McNaught, C., Ed.; Petro		
Corporate Source:	Australasian Society for Computers in Learnin	Publication Date:	2001

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options below and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affi Level 2B documents
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY HAS BEEN GRANTED BY	PERMISSION TO REPRODUCE AND DISS THIS MATERIAL IN MICROFICHE ONL BEEN GRANTED BY
SAMPLE	SAMPLE	SAMPLE
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)	TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)	TO THE EDUCATIONAL RESOURC INFORMATION CENTER (ERIC)
Level 1	**Level 2A**	**Level 2B**
○	◉	○
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.	Check here for Level 2B release, permitting re and dissemination in microfiche only
Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.		

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature: H. Carter	Printed Name/Position/Title: Helen Carter - ASCILITE President
Organization/Address: C/CEDIR University of Wollongong Wollongong NSW 2522 Australia	Telephone: 02-4221-4895 FAX: 02-4225-8312 E-mail Address: info@ascilite.c Date: 05/14/02

EFF-088 (Rev. 2/2001)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available throughb EDRS.

Publisher/ Distributor:	
Address:	
Price:	

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:	
Address:	

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:	ERIC Clearinghouse on Information & Technology Syracuse University 621 Skytop Road, Suite 160 Syracuse, NY 13244-5290 E-Mail ericft@ericir.syr.edu 315-443-3640 1-800-464-9107 Fax: 315-443-5448

Send Form Clear Form